

WHAT IS CLAIMED IS:

Sub D1
1. A method for producing an immune stimulating composition comprising:
treating bacteria containing peptidoglycan with acid;
removing large cellular components from the solution resulting from said
5 treating; and
saving the remaining solution and adjusting the pH to a physiologically
acceptable pH.

Sub E2
10 2. The method of Claim 1 wherein said removal of large cellular
components is by centrifugation.

3. The method of Claim 2 wherein said centrifugation is at 10,000xg for
about 20 minutes.

Sub E3
4. The method of Claim 1 further comprising heating at about 100°C during
said treating with acid.

5. The method of Claim 4 wherein said heating is for about 2 hours.

15 6. The method of Claim 1 wherein said acid is selected from the group
consisting of acetic acid, hydrochloric acid, and sulfuric acid.

Sub F1
7. The method of Claim 1 wherein said acid is acetic acid.

8. The method of Claim 1 wherein said bacteria containing peptidoglycan is
Lactobacillus.

20 9. The method of Claim 8 wherein said bacteria is *L. fermentum*.

10. The method of Claim 1 further comprising ultrafiltration of said
remaining solution.

11. The method of Claim 1 further comprising removing the lipids from said
remaining solution.

25 12. The method of Claim 11 wherein said lipids are removed with
chloroform.

Sub F2
13. The method of Claim 1 further comprising TCA precipitation of said
remaining solution.

30 14. The method of Claim 1 further comprising lyophilization of said
remaining solution.

15. The method of Claim 1 wherein said acid treatment is at a final pH of about 2.0.

16. A method for producing a peptidoglycan extract from bacteria comprising:

heating a Gram positive bacteria in water and acid;

removing large cellular particles from the solution resulting from said heating;

adjusting the pH of the remaining solution to about 7.0.

17. The method of claim 16 wherein said acid treatment is at a final pH of about 2.0.

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18. The method of Claim 16 wherein said Gram positive bacteria is Lactobacillus.

19. The method of Claim 16 further comprising removing lipids from said remaining solution.

20. The method of Claim 16 further comprising ultrafiltration from said remaining solution.

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21. The method of Claim 16 further comprising TCA precipitation from said remaining.

22. A method for the treatment of cancer in a mammal comprising:
administering an effective amount of a bacterial extract obtained by the method of Claim 1, in a pharmaceutically acceptable carrier.

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23. The method of Claim 22 wherein said administration is by intravenous or intraperitoneal administration.

24. The method of Claim 22 wherein said effective amount is about 900mg/day.

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25. An immuno-stimulatory composition comprising a bacterial extract produced by the method of Claim 1 and an extract from Convolvulus arvensis (Field Bindweed).

26. An immunostimulatory composition comprising an acid-treated bacterial extract wherein said bacterial extract comprises peptidoglycan fragments.

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27. The immunostimulatory composition wherein said bacterial extract is from a Gram positive bacteria.

28. The immunostimulatory composition of Claim 28 wherein said Gram positive bacteria is selected from the group consisting of Lactobacillus, Streptococcus, and Bifidobacterium.

29. The immunostimulatory composition of Claim 28 wherein said bacteria is Lactobacillus.

30. The immunostimulatory composition of Claim 29 wherein said bacteria is Lactobacillus fermentum. A

31. The immunostimulatory composition of Claim 26 wherein said acid is selected from the group consisting of acetic acid, hydrochloric acid, and sulfuric acid.

32. The immunostimulatory composition of Claim 31 wherein said acid is acetic acid.

33. An immunostimulatory composition comprising an acid-treated bacterial extract produced by the method of Claim 1.

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F5